

#### SENT VIA FED EX AND ELECTRONIC MAIL

March 23, 2016

Allegheny County Health Department Air Quality Program – Enforcement 301 39<sup>th</sup> Street, Building 7 Pittsburgh, PA 15201

United States Environmental Protection Agency Region III – Air Protection Division 1650 Arch Street (3AP00) Philadelphia

SUBJECT:

**United States Steel Corporation - Clairton Works** 

40 CFR Part 63 Subpart DDDDD: National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and

**Process Heaters** 

**Notification of Compliance Status** 

Dear Sir or Madam,

In accordance with 40 CFR 63.7545(e), U. S. Steel is submitting the enclosed notification of compliance status for Clairton Works regarding Subpart DDDDD, the National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters.

If you have any questions regarding this submittal, please contact Jonelle S. Scheetz at (412) 233-1015 or JSScheetz@uss.com.

Sincerely,

Amy B. Smith-Yoder

General Manager

U. S. Steel - Mon Valley Works

Enclosure

cc:

**EPA Region III** 

# United States Steel Corporation – Mon Valley Works - Clairton Works Notification of Compliance Status Report

## **Boiler MACT Affected Units**

Clairton Works determined that the units identified in Table A below are existing units under the rule and submitted initial notifications accordingly.

	Table A - Boiler MACT Existing Units				
Description	Subcategories	Design Heat Input Capacity	Add-On controls to comply	Fuel(s) Burned	Comments
			with		-
Boiler 1	§63.7499(1)	760	Subpart N/A	Coke Oven Gas	Soo other god 1
Doller 1	Units designed	MMBTU/hr	IN/A	- Other Gas 1/	See other gas 1 determination in
	to burn gas 1 fuels.	WIND TO/III		Natural Gas	"Fuel Analysis" section below.
Boiler 2	§63.7499(1)	481	N/A	Coke Oven Gas	See other gas 1
	Units designed	MMBTU/hr		– Other Gas 1/	determination in
	to burn gas 1 fuels.			Natural Gas	"Fuel Analysis" section below.
Boiler R1	§63.7499(l)	229	N/A	Coke Oven Gas	See other gas 1
	Units designed to burn gas 1 fuels.	MMBTU/hr		– Other Gas 1/ Natural Gas	determination in "Fuel Analysis" section below.
Boiler R2	§63.7499(1)	229	N/A	Coke Oven Gas	See other gas 1
	Units designed	MMBTU/hr		– Other Gas 1/	determination in
	to burn gas 1 fuels.			Natural Gas	"Fuel Analysis" section below.
Boiler T1	§63.7499(1)	156	N/A	Coke Oven Gas	See other gas 1
	Units designed	MMBTU/hr		– Other Gas 1/	determination in
	to burn gas 1			Natural Gas	"Fuel Analysis"
	fuels.				section below.
Boiler T2	§63.7499(1)	156	N/A	Coke Oven Gas	See other gas 1
	Units designed	MMBTU/hr		- Other Gas 1/	determination in
	to burn gas 1 fuels.			Natural Gas	"Fuel Analysis" section below.

## **One-Time Energy Assessment**

A one-time energy assessment as described in Table 3 of the rule was performed for all of the affected units listed above prior to January 31, 2016.

#### **Fuel Analysis**

Fuel sampling and mercury analysis was required for Coke Oven Gas to determine other gas 1 fuel applicability for Boilers Nos. 1, 2, R1, R2, T1, and T2. A gaseous fuel that is not natural gas or refinery gas and does not exceed a maximum concentration of 40 micrograms/cubic meters of mercury meets the definition of other gas 1 fuel.

Coke Oven Gas Line sampling and fuel analysis for mercury was performed on December 17, 2015. Per 40 CFR 63.7521(i), testing was performed using ASTM D5954-98 to determine the concentration in the fuel of mercury. The analysis was submitted on February 12, 2016 as required by 40 CFR 63.7550(h)(1). The results are summarized below.

# ASTM D5954-98 Mercury Test Results Summary of Coke Oven Gas – Burned in Combustion Units Identified in Table A

Test No.	Date	ug/dscm	
1	12/17/2015	0.36	
2	12/17/2015	0.27	
3	12/17/2015	0.29	
4	12/17/2015	1.38	
5	12/17/2015	0.27	
	0.51		

As shown by the results above, Coke Oven Gas meets the definition of other gas 1 fuel. Per 40 CFR 63.7540(c)(1), if the initial mercury constituents are measured to be equal to or less than half of 40 micrograms/cubic meters of mercury, you do not need to conduct further sampling. Based on the results above, no further sampling is required at Clairton Works.

## Discussion of Applicability of Emission Limits

#### Particulate Matter

As existing units designed to burn gas 1/other gas 1 fuels, there are no applicable PM emission limits or alterative TSM emission limits for the boilers or furnaces at Clairton Works.

#### Carbon Monoxide

As existing units designed to burn gas 1/other gas 1 fuels the units are not subject to any emission standards in Tables 1, 2, or 11 through 13, including carbon monoxide.

#### General

Without any applicable emission limits, Clairton Works is not required to demonstrate compliance using performance testing, CEMS, or fuel analysis. Additionally, there are no required emissions averaging or usage of efficiency credits through energy conservation.

## **Continuing Compliance**

Tune-Ups

In addition to the one-time energy assessment, the units also had initial tune-ups performed prior to the January 31, 2016 compliance date. As described in Table 3 of the rule, the tune-up work practice standards are ongoing and will occur at the prescribed frequencies depending on the specific unit characteristics.

Reporting Requirements

Since the units are only subject to subsequent tune-ups (work practice standards), per 40 CFR 63.7550(b), Clairton Works can submit only an annual, biennial, or 5-year compliance report (as applicable) instead of a semi-annual compliance report. The report will include the information described in 40 CFR 63.7550(c)(1). Deviations from the work practice standards will be identified according to 40 CFR 63.7550(d). The report will be submitted electronically to the EPA via CEDRI per 40 CFR 63.7550(h)(3).

## **Certification of Compliance**

The affected units do not have any applicable emission limits under 40 CFR part 63 subpart DDDDD. This facility has met all work practice standards.

This facility completed the required initial tune-up for all of the boilers and process heaters covered by 40 CFR part 63 subpart DDDDD at this site according to the procedures in §63.7540(a)(10)(i) through (vi).

This facility has had an energy assessment performed according to §63.7530(e).

I certify that the information contained in or accompanying this submission is accurate and I attest that the source has complied with the relevant standard.

Sincerely,

Amy B. Smith-Yoder

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General Manager

United States Steel Corporation - Mon Valley Works